Electromagnetic Door Holder/Releases

Door Control for Fire and Smoke Barrier Doors and Other Remote Door Release Applications



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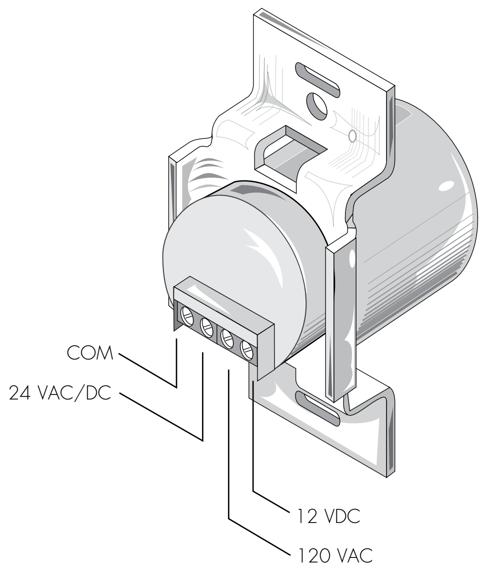
ASSA ABLOY, the global leader in door opening solutions

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GENERAL INFORMATION

Electromagnetic door holder/releases are designed for virtually any remote door release applications. They must be used in conjunction with closing devices.

- Fire/smoke barrier doors
  – Door releases when tripped by an alarm or smoke detector
- Private offices
  – Door releases when triggered by a remote switch
- All devices come with a wall/floor portion and a door portion (armature)
- Circuit normally closed
- Door portions have screws and plates to accommodate surface and concealed mounting



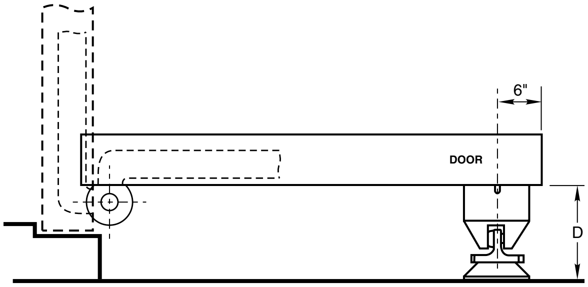
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Prior to determining the product you will need to use, begin by looking at the door and perpendicular wall relationship.

• Measure the distance. That will give you the "D" dimension. Select from chart A.

CHART A

If the distance from wall to door is: "D"	Use
7/16" (11)	989
1-13/16" (46)	990
2-5/8" (67)	997
3-5/8" (92)	998
3-3/4" (95)	994
4-1/8" (105)	996
4-3/8" (111)	999
5-1/8" (130)	998 x XK996
6-5/8" (168) min. distance from wall	980
6-3/4" distance between doors	981



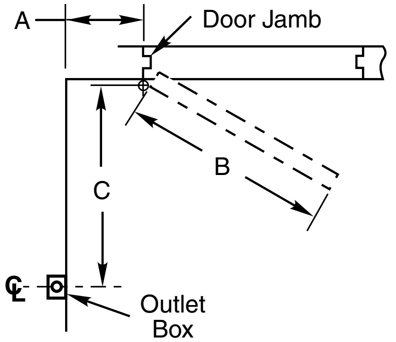
900 base has a minimum: 1-1/2" (38mm) extension. Maximum: 10" using combination of spacers [1/2" (13mm), 3/4" (19mm), etc.] Longer armature projections may encourage abuse and/or the weight of the extended rods will pull off the face of the door.

CHART B

Junction box location should always be as close as possible to the door pull/lever/knob.

A position horizontally farther toward the hinge edge will dramatically lessen the hold open force of the magnet.

A mounting too high on the vertical plane (top of door) will make it more difficult to pull out of hold open.



Refer to Diagram B

• How far is the centerline of the pivot/hinge from the wall? "A" dimension
• What is width of door? "B" dimension
• At what degree is the door opening? If this dimension is more than 100° consult template.
The armature has a few degrees of adjustment but, before proceeding verify with the product template
• Dimension "C" is from pivot point to junction box centerline

FEATURES

- 25 to 40 pounds holding power, except where noted
- Fail-safe operation; power failure releases door to close
- Positive release button initiates closing motion
- Tri-volt coils on most models see
- Spotting template included
- For stronger holding forces (50-55 lbs.) specify model and voltage. Not available in tri-volt coils

CERTIFICATIONS

All Rixson® electromagnetic door holder/releases are in compliance with ANSI/BHMA A156.15 Standards. See individual products for sub sections.

- All units UL/ULC listed
- All units listed by California State Fire Marshal

LIMITED WARRANTY

Rixson® electromagnetic door holder/releases are warranted for 2 years for defect. See Rixson® Price Book for specific details of the limited warranty.

SPECIFICATIONS

All electromagnetic door holder/releases shall be supplied by architectural hardware supplier. All units shall have a single coil to accommodate 12VDC, 24VAC, 24VDC and 120VAC. The coils shall be independently wound, employing a fuse. Armatures will have positive release button.

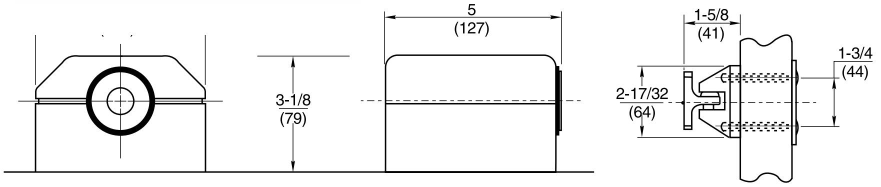
MODEL 980

Application
- Floor Mount
- Single Door
- ANSI/C00021

Product Description & Features
- Concealed Wiring
- Total Floor Space Required: 6-5/8" (168mm)
- Mounting Requirements: Conduit connects directly to floor plate

Technical Information
- Voltage and Current:
  120VAC, 60 Hz., .020 amp
  24VAC/DC, 60 Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 4 lbs. (1.8 kg)





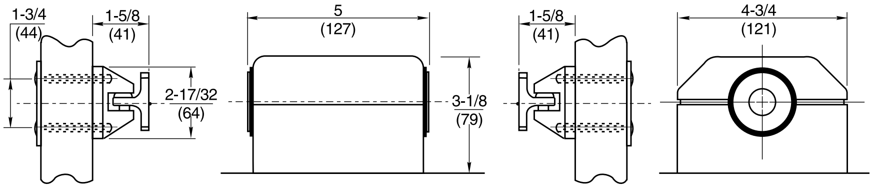
MODEL 981

Application
- Floor Mount
- 2 Back-to-Back Doors
- ANSI/C00031

Product Description & Features
- Concealed Wiring
- Floor Space Required: 8-1/4" (210mm)
- Mounting Requirements: Conduit connects directly to floor plate

Technical Information
- Voltage and Current:
  120VAC, 60Hz., .040 amp
  24VAC/DC, .040 amp
  12VDC, .080 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .034 amp
  24VAC, 60Hz .016 amp
  24VDC, .036 amp
  12VDC, .360 amp
  240VAC, 50/60Hz. .018 amp
- Shipping Weight: 4-3/4 lbs. (2.2 kg)

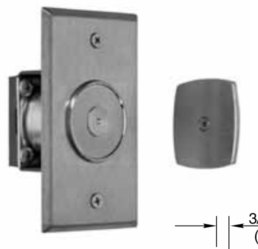




MODEL 989

Application

- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

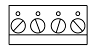


Product Description & Features

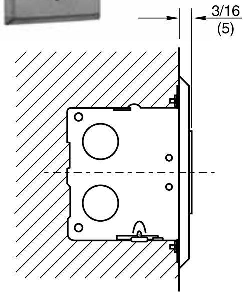
- Total Projection: 7/16" (11mm)
- Mounting Requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and oulet box adequately fastened

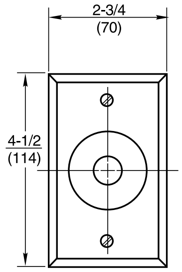
Technical Information

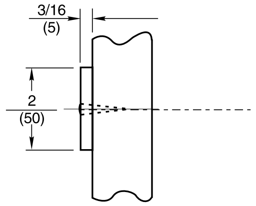
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp



- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)



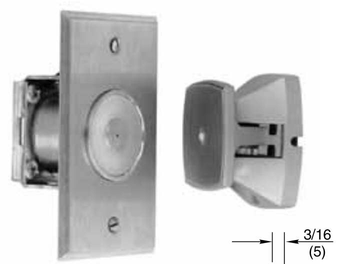




MODEL 990

Application

- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

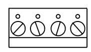


Product Description & Features

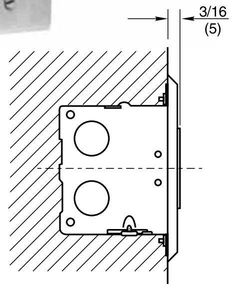
- Total Projection: 1-13/16" (46mm)
- Mounting Requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

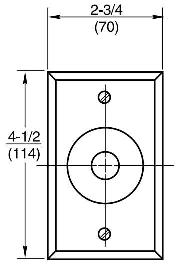
Technical Information

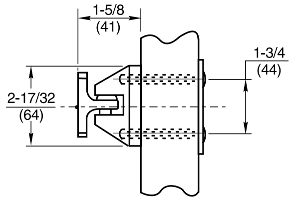
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp



- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)







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MODEL 991

Application

- Wall Mount
- Surface Wiring
- Hazardous Locations
- ANSI/C00011

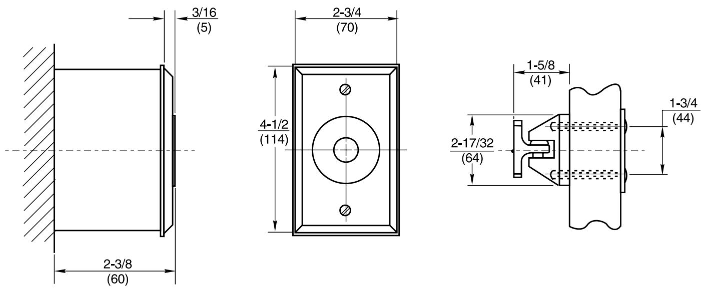
Product Description & Features

- Total Projection: 4" (101mm)
- Approved for class I division 2, class II division 2, groups F and G and class III locations
- Unit includes a sealed surface-mounted junction box

Technical Information

- Voltage and Current:
  120VAC, 60Hz., .017 amp
  24VAC, .080 amp
  12VAC, .180 amp
  24VDC, .068 amp
  240VAC, 50/60Hz., .009 amp
- Shipping Weight: 3 lbs. (1.4 kg)





MODEL 993

Application

- High Hold
- Surface or Concealed Mounting
- Floor or Wall Application

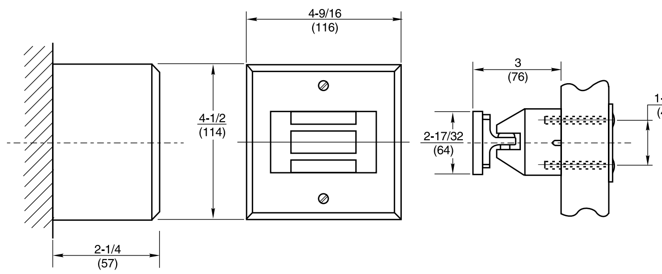
Product Description & Features

- 300 lb. holding force
- Total Projection: 5-1/4" (133mm)
- Switch Box Included 4-1/2" x 4-9/16" x 2-5/16" (114 x 116 x 59mm) deep
- Armature plate thru-bolted to maintain consistent contact with magnet
- Adjusting screw on special heavy-duty armature allows for alignment of contact plate
- 9930 Floor mount available
- Unit has test switch – may be ordered without switch if door will be pulled out of hold open very often
- Use key switch to release (by others)
- Substantial wall reinforcement required

Technical Information

- Voltage and Current: 24VAC/DC .25 amp
- Shipping Weight: 3 lbs. (1.4 kg)





MODEL 994

Application

- Wall Mount
- Adjustable Armature
- Concealed Wiring
- ANSI/C00011

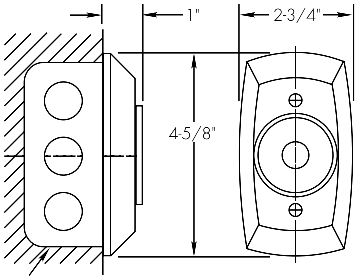


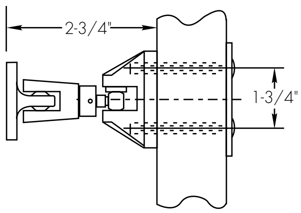
Product Description & Features

- Total Projection: 3-3/4" (95mm)
- Adjustable armature rotation up and down, back and forth for better alignment.
- Cannot be use with 900 base or spacers.
- Can be used without adjustment piece making it a model 997
- Mounting Requirements:
  2" x 4" x 2-1/2" (51 x 102 x 64mm)
  outlet box
- Wall must be properly reinforced and outlet box adequately fastened

Technical Information

- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)





MODEL 996

Application

- Wall Mount
- Surface Wiring
- ANSI/C00011

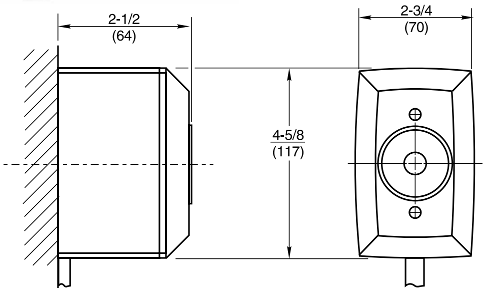


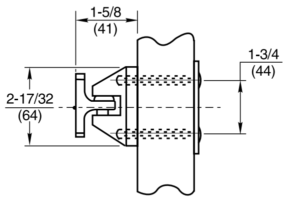
Product Description & Features

- Total Projection: 4-1/8" (105mm)
- Mounting Requirements:
  1-1/2" (38mm) deep adapter housing
- Wall must be properly reinforced

Technical Information

- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 3 lbs. (1.4 kg)





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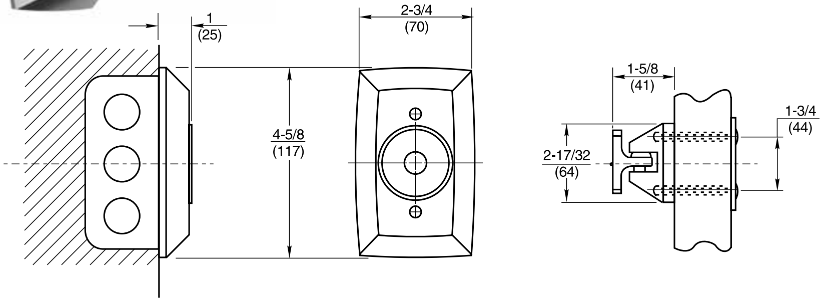
MODEL 997

Application
- Wall Mount
- Concealed Wiring
- ANSI/C00011

Product Description & Features
- Total Projection: 2-5/8" (67mm)
- Mounting Requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

Technical Information
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)



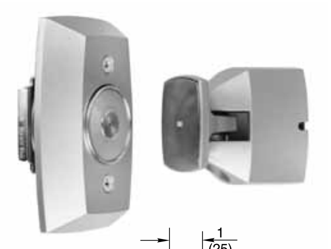


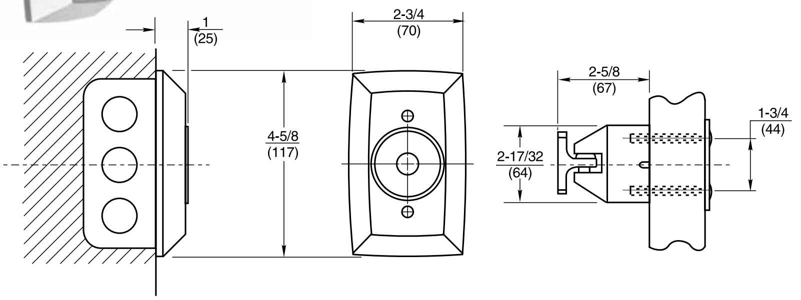
MODEL 998

Application
- Wall Mount
- Concealed Wiring
- ANSI/C00011

Product Description & Features
- Total Projection: 3-5/8" (92mm)
- Mounting Requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

Technical Information
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp
- Shipping Weight: 2-1/2 lbs. (1.1 kg)





MODEL 999

Application

- Universal Mounting
- ANSI/C00011



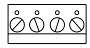
Product Description & Features

- Base Plate; Concealed Wiring
- Total Projection: 4-3/8" (111mm)
- Mounting Requirements: 2" x 4" (51 x 102mm) outlet box; 4" (102mm) square box; 4" (102mm) octagonal box
- Wall must be properly reinforced and outlet box adequately fastened

Technical Information

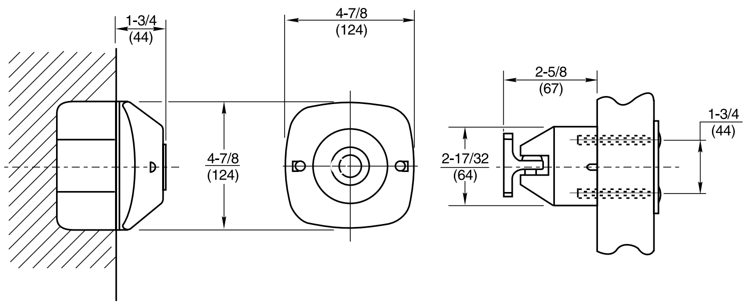
- Voltage and Current:

  120 VAC, 60 Hz., .020 amp
  24 VAC/DC, 60 Hz., .020 amp
  12 VDC, .040 amp



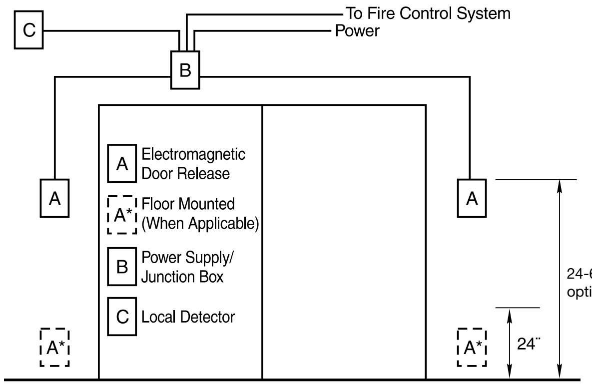
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, .180amp
  240VAC, 50/60Hz. .009 amp

Shipping Weight: 2-3/4 lbs. (1.2 kg)



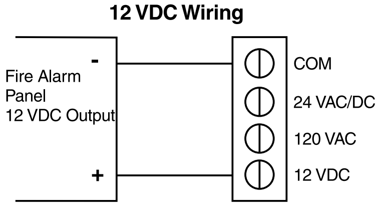
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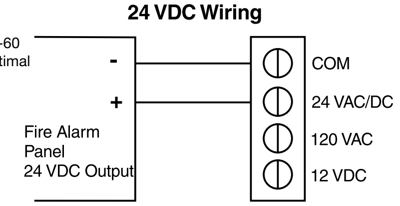
SCHEMATICS

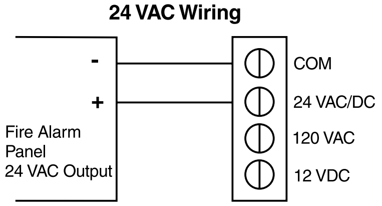


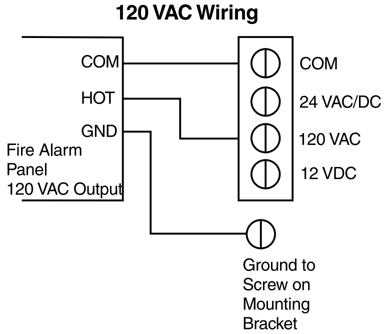
Operation Narrative

Doors are to be normally held open. The electromagnetic door releases will be energized with the voltage shown (at right) in the hardware set for this opening. Power shall be controlled by the fire control system. It will interrupt the power if alarmed, causing the doors to be released, thus allowing the door closers to close the doors. When power is restored the magnets will re-energize, permitting the doors to be manually returned to their held open position.





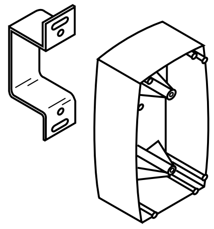




Electrical Specifications:
12 VDC @ 040AMPS
24 VAC/DC @ .020 AMPS
120 VAC @ .020 AMPS
(or see specific model)

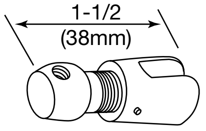
NOTE: All wiring must be installed in compliance with the National Electrical Code and the local codes having jurisdiction. Proper wire gauge should be used.

ACCESSORIES

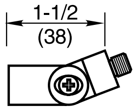


1-1/2" (38mm) Extension
(for use only with Models 997, 998 & 994)
Mounts behind wall cover.

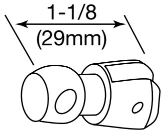
XK996
Part# 996631-*



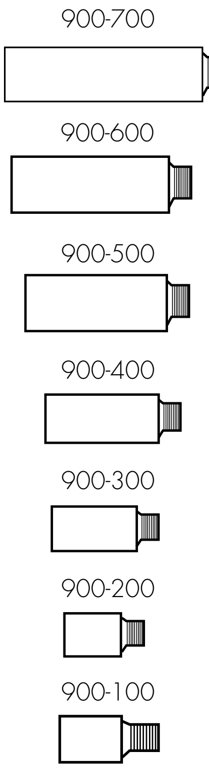
Base Unit Armature Extension
Mounts between armature and contact plate.
Part# 900
Cannot be used with model 994



Armature Extension 90° Bend
Part# 900-Z
Must be used with 900 base unit. Those two pieces will extend armature 3" longer than the contact plate.

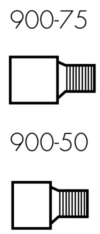


994 Swivel Armature
(cannot be used with extension spacers)
Part# 900-3



Spacer lengths – must be used with 900 base

For dimensions, see chart below



Extension pieces must be used in conjunction with 900 Base Unit
Part# 900-700 = 7"
Part #900-600 = 6"
Part# 900-500 = 5"
Part# 900-400 = 4"
Part# 900-300 = 3"
Part# 900-200 = 2"
Part# 900-100 = 1"
Part# 900-75 = 3/4"
Part# 900-50 = 1/2"

MODEL 972

The Rixson® 972 Industrial Door Release is listed by Underwriters' Laboratories as a substitute for fusible links in such applications as overhead rolling doors, guillotine doors, fire dampers and self-closing windows. These heavy-duty units provide automatic release when triggered by a smoke detector, manual pull station, test button on unit, or other electrically operated switch.

Application

- 972H for Swinging Doors
- 972S for Sliding Doors
- 972U for Overhead Doors
- ANSI/C00041

Product Description & Features

Technical Information

- Voltage and Current:
  120VAC, 60Hz., .150 amp
  24VAC, 60Hz., .150 amp
  24VDC, .08 amp
  12VDC, .08 amp
- Holding force 75 lbs
- Shipping Weight: 5 lbs. (2.3 kg)

Code Listings:

- Underwriters' Laboratories, Inc.
- Underwriters' Laboratories of Canada
- State of California (3550-047:13)

How to Order:

Specify model number and voltage.



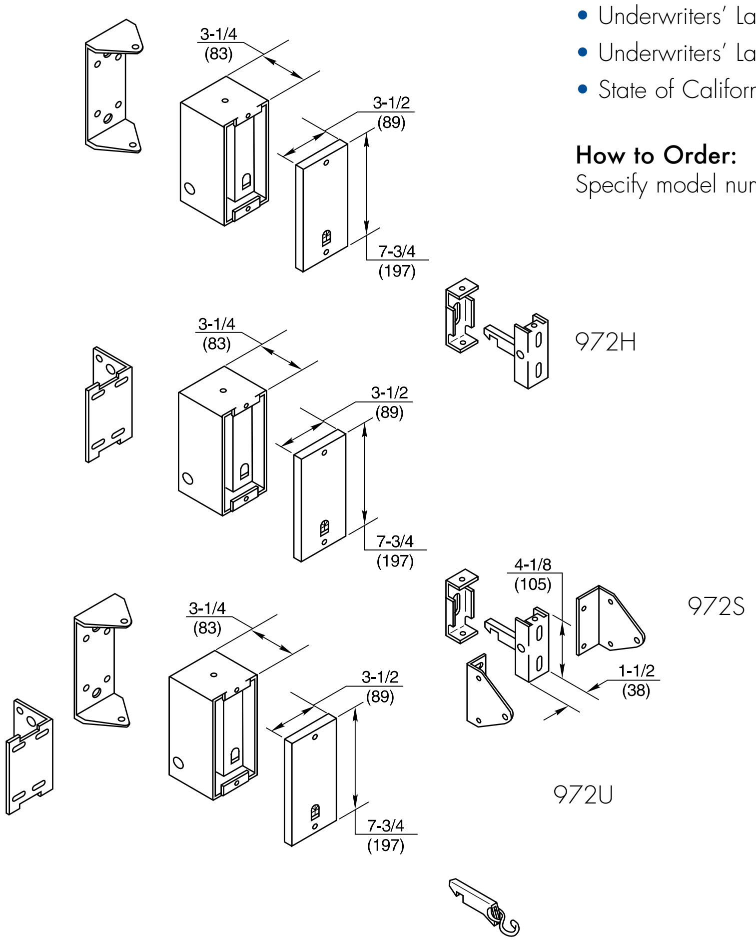
972H for
Swinging Doors



972S for
Sliding Doors



972U for
Overhead Doors



HOW TO ORDER

998 Series	120VAC Voltage	689 Finish

Series

980	Floor Mounted
981	Floor Mounted Back to Back Doors
989	Low Projection Wall Mounted
990	Low Projection Wall Mounted
991	Hazardous Location Wall Mounted
993	High Hold Wall Mounted
9930	High Hold Floor Mounted
994	Wall Mounted Adjustable Armature
996	Surface Mounted
997	Wall Mounted
998	Wall Mounted
999	Universal Wall Mounted
972H	Industrial Swing Door Holder
972S	Industrial Sliding Door Holder
972U	Industrial Overhead/Rolling Door

Voltage

BLANK	TRI-VOLT
24VAC/DC	*24VAC/DC
12VDC	*12VDC
12VAC	*120VAC
120VAC	*240VAC
240VAC	

Finish

689 Sprayed Alum
690 Sprayed Dk Brz
691 Sprayed Lt Brz
693 Sprayed Black
696 Sprayed Brass

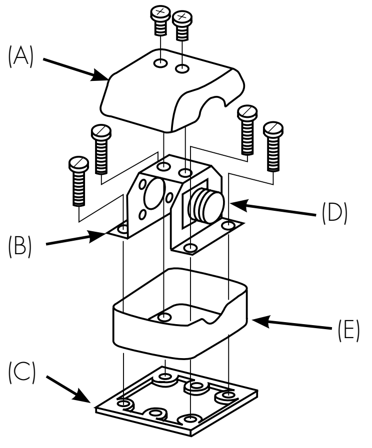
*When voltage is specified, these electromagnetic door holder/releases will have 50-55 lbs. of holding force.

USED WITH MODEL 980/981

Floor Portion

(A)	Magnet Housing Cover 980311-*/981311-*
(B)	Magnet Support Bracket 981309
(C)	Gasket 980095
(D)	Magnet **996219-3V
(E)	Magnet Housing Base 980312-*/981312-*

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for electromagnet assembly part number.



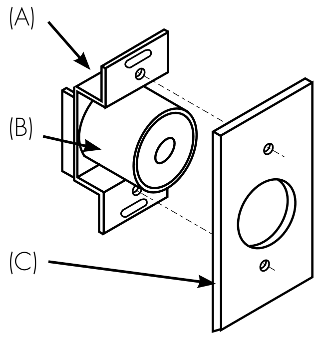
Screw Kits
Screw Kit for 980 980328-*
Screw Kit for 981 981328-*

USED WITH MODEL 990, 989

Wall Portion

(A)	Magnet Bracket 990002
(B)	Magnet **996219-3V
(C)	Wall Cover Plate 990001

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.



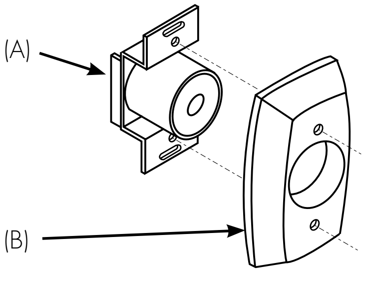
Screw Kits
Screw Kit for 990 990300-*

USED WITH MODEL 994, 997, 998

Wall Portion

(A)	Magnet Assembly and Bracket **998369-3V
(B)	Cover 998315-*

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.



Screw Kits
Screw Kit for 994/997/998 998300-*

*specify finish

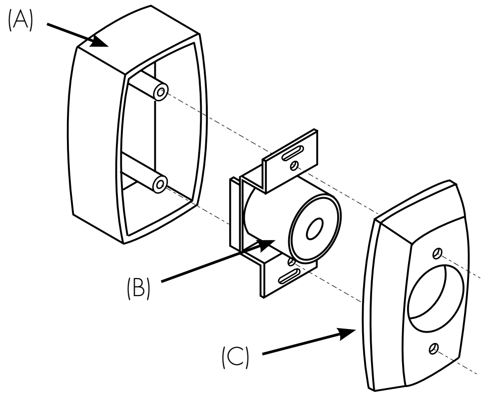
USED WITH MODEL 996

Wall Portion

(A)	Surface Mounting Box Housing 996501-*
(B)	Magnet Assembly and Bracket **996369-3V
(C)	Cover 998315-*

*specify finish

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.



Screw Kits
Screw Kit for 996 996325-*

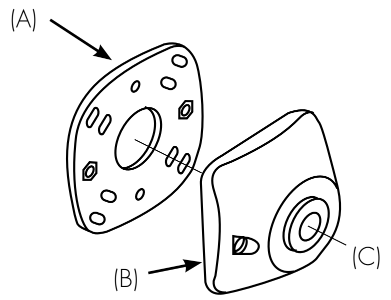
USED WITH MODEL 999

Wall Portion

(A	Base Plate 999105
(B)	Cover 999055-*
(C)	Magnet **996219-3V

*specify finish

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.



Screw Kits
Screw Kit for 999 999318-*

USED WITH MODEL 980/981, 990, 991, 996, 997

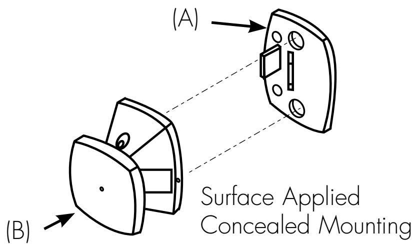
Door Portion

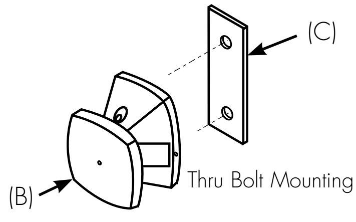
(A)	**Backup Plate 900314
(B)	Door Armature 997510-*
(C)	**Door Plate* 998009

**Not Sold Separately – See Screw Kit

*specify finish

Door portion screws included with Wall/Floor parts.





ELECTROMAGNETIC DOOR HOLDER/RELEASES
PARTS DRAWINGS

USED WITH MODEL 998, 999

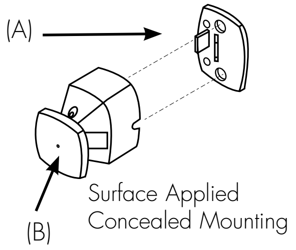
Door Portion

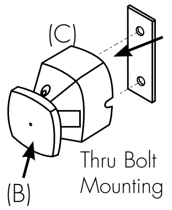
(A)	**Backup Plate 900314
(B)	Door Armature 998512-*
(C)	**Door Plate 998009

**Not Sold Separately – See Screw Kit

*specify finish

Door portion screws included with Wall/ Floor parts.





USED WITH MODEL 994

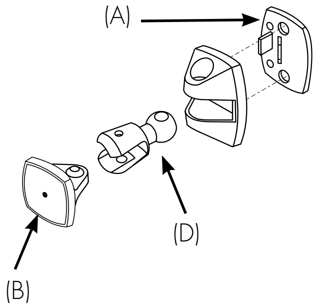
Door Portion

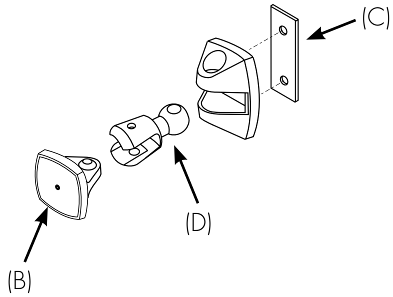
(A)	**Backup Plate 900314
(B)	Adjustable Armature 994510-*
(C)	**Door Plate 998009
(D)	Adjustment Piece 900-3*

**Not Sold Separately – See Screw Kit

*specify finish

Door portion screws included with Wall/ Floor parts.

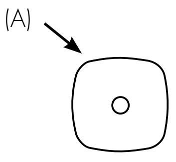


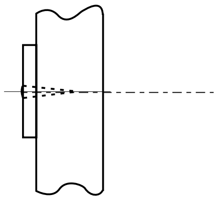


USED WITH MODEL 989

Door Portion

(A)	Door Armature Attachment screw included in Kit. 444FM



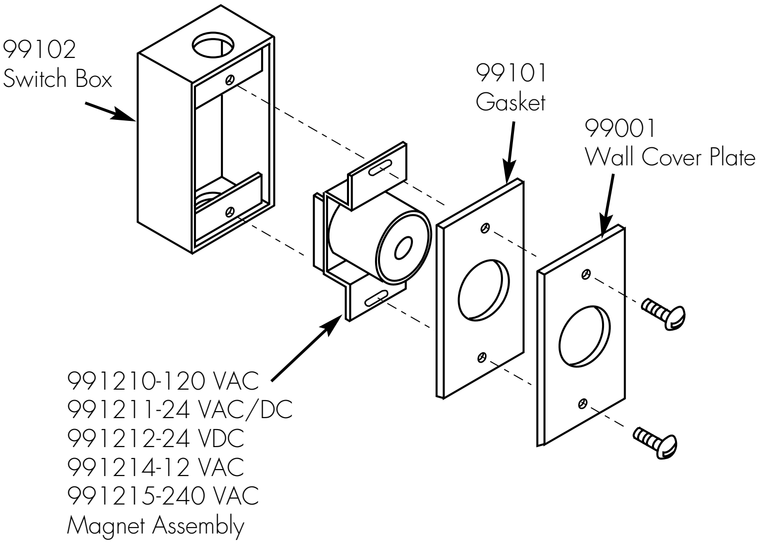


USED WITH MODEL 991

Wall Portion

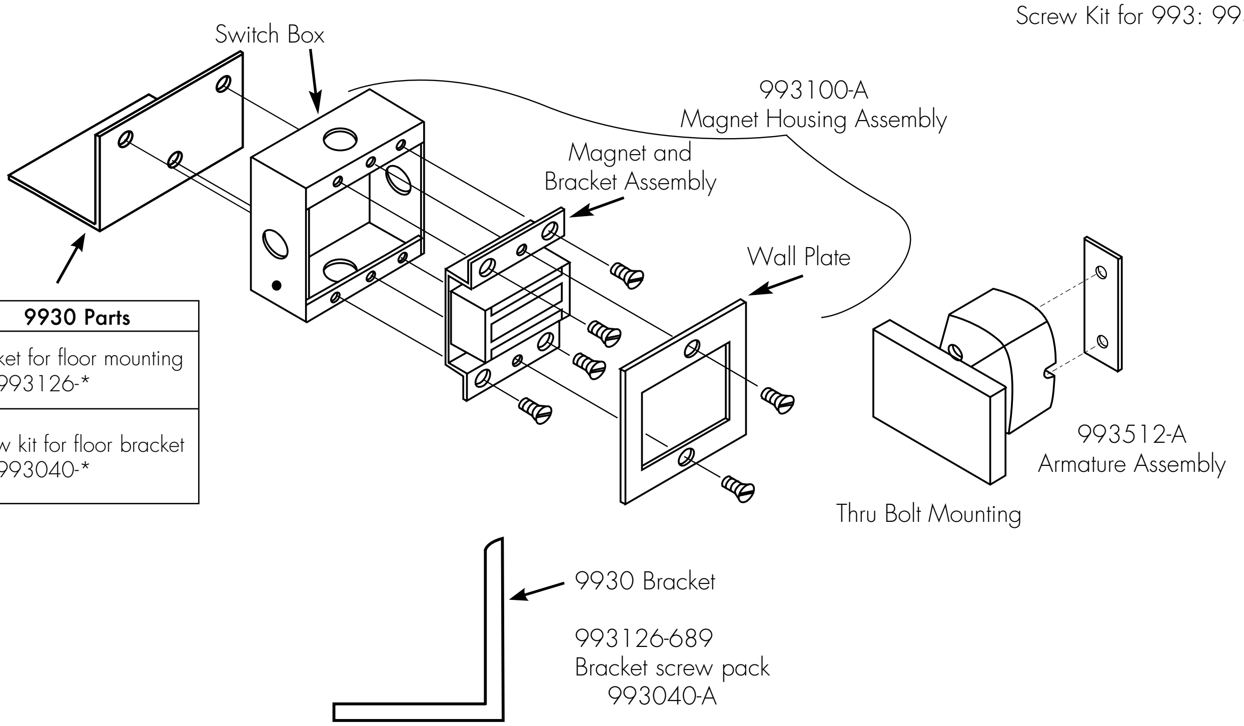
Screw Kit for 991: 990300-*

*specify finish



USED WITH MODEL 993/9930

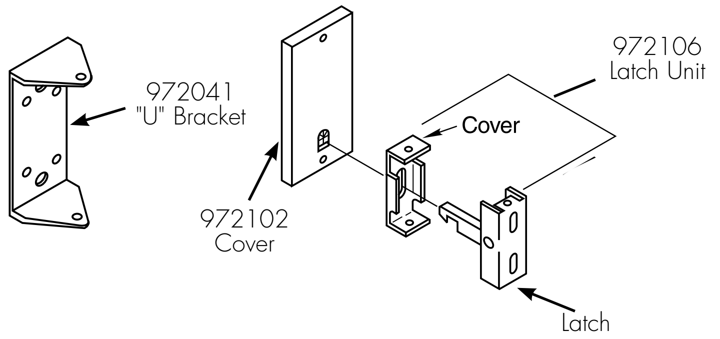
Screw Kit for 993: 993300-A

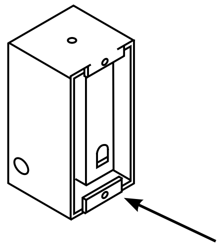


9930 Parts
Bracket for floor mounting 993126-*
Screw kit for floor bracket 993040-*

ELECTROMAGNETIC DOOR HOLDER/RELEASES
PARTS DRAWINGS

USED WITH MODEL 972H

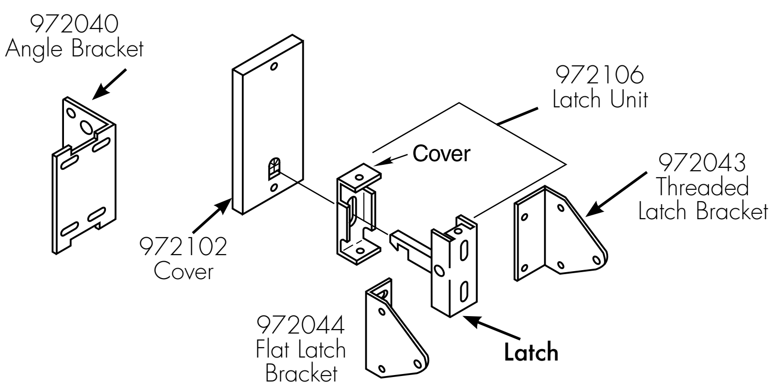


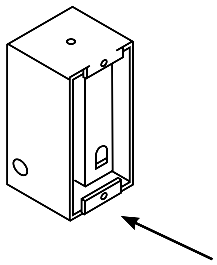


Screw Kit for 972H:
972190

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

USED WITH MODEL 972S

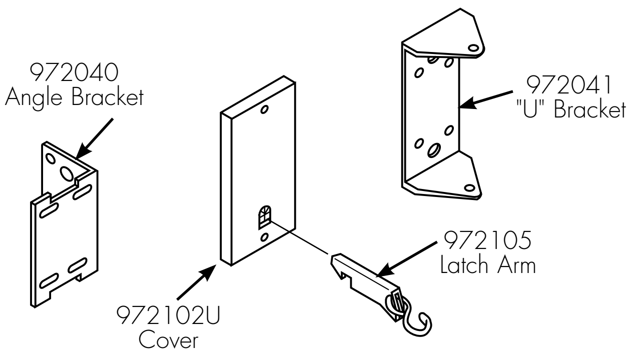


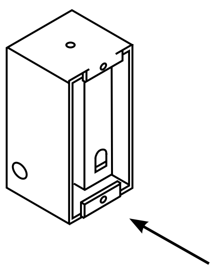


Screw Kit for 972S:
972290

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

USED WITH MODEL 972U





Screw Kit for 972U:
972390

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

*specify finish

NOTES

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Fax: 800-338-0965

ASSA ABLOY Door Security Solutions Canada
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Vaughan, Ontario, L4K 4T9 Canada
Tel: 800-461-3007
Fax: 800-221-0489

For a complete listing of products and applications please visit our web site.
www.rixson.com
www.assaabloy.ca

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